## Message

From: Brown, Chad (ECY) [CHBR461@ECY.WA.GOV]

**Sent**: 4/11/2014 12:10:18 AM

To: Covington, James [/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=37b66364a2a84cf494c686173ee51f53-JCOVIN02]

CC: Szelag, Matthew [/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=f1e48230d96943f8acb72810e32ce8d6-Szelag, Matthew];

mgil461@ECY.WA.GOV [/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=c7ab63dfcb56401284b16f8d24341337-mgil461@ECY.WA.GOV]

Subject: RE: Target List of 13 chemicals for tribal toxics study

## James,

Thank you for the discussion yesterday. As we explained discuss, the Washington State rule-making process requires the agency to develop a cost/benefit analysis and determine that the probable benefits outweigh the probable costs of the rule. We meet that requirement through a qualitative, and where feasible, a quantitative analysis. We are attempting to provide quantitative information of health benefits with non-cancer chemicals, as we have with chems with a cancer risk based criterion. Our lead on the toxic criteria is out of the office and I am working with our economic staff on the development of the CBA. So, I am hoping to make the most sense with this request as possible.

Below is a list of chemicals for which we will be proposing a new criterion based on non-cancer effects (and for which we commonly have detections during our permitting processes). We would appreciate any information or thoughts on the health benefits/effect that may be quantifiable due to a further reduction (or in some cases potential increases) of these chemicals in receiving waters. We understand that quantifying benefits of threshold-effect chemicals may be difficult but if you or other staff have suggestions, we would appreciate the input.

The factors by which these criteria concentrations will increase or decrease have not yet been determined (due to ongoing policy discussions) however, if this is an important element to include, we can provide a possible scenario. Also, the inclusion of Arsenic and PCBs on this list may be confusing but we are seeking non-cancer effect information for other reasons.

| Chemical           |
|--------------------|
| 1,4 Dichlorbenzene |
| Antimony           |
| Chloroform         |
| Diethyl phthalate  |
| Ethylbenzene       |
| Arsenic            |
| PCBs               |
| Thallium           |
| Toluene            |

Thank you for your help and please let us know if you have any questions.

## Chad

Chad Brown | Water Quality Standards | WA Dept. of Ecology | 360-407-6128 | chad.brown@ecy.wa.gov

From: Brown, Chad (ECY)

Sent: Wednesday, April 09, 2014 12:06 PM

To: 'Szelag, Matthew'

Subject: FW: Target List of 13 chemicals for tribal toxics study

Late list of chems...

These are some results from our preliminary work to identify chemicals that have been detected and/or where limits have been assigned.

Below is a combined list of chemicals that meet <u>one</u> of the follow criteria for inclusion on a list of chemicals that are most likely to drive new treatment requirements:

- 1. Already have a limit required in at least one permit
- 2. Have been identified as possibly triggering a new limit in a permit based on PP scan data review. (not all PP scans concentrations have been reassessed for Reasonable Potential Determination. So a few other chemicals could be added due to this reason.)
- 3. Is a chemical that is on the top 10 most detected chemicals. This is the list that I sent previously (Nickel was removed because current or potential limits would be based on Aquatic Life Criteria as is the case with most metals)

It is important to note that depending on the final policy decisions, some of these chemical criteria may become less stringent due to many of the factors that we have already discussed (i.e. updated toxicity factors). Therefore, increased treatment beyond what is currently in place to meet the NTR criteria would not be necessary in those cases. We won't have the direction (up or down) of the criteria until the final policy decisions are made.

Please feel free to call or email if you have any questions.

| Chemicals                   |
|-----------------------------|
| 1,4 Dichlorbenzene          |
| 3,3'-Dichlorobenzidine      |
| 4,4'-DDE                    |
| 4,4'-DDT                    |
| Acrylonitrile               |
| Antimony                    |
| Arsenic                     |
| Benzene                     |
| Benzo(a)Anthracene          |
| Benzo(a)pyrene              |
| Benzo(b)Fluoranthene        |
| Benzo(k)fluoranthene        |
| Bis(2-Chloroethyl)Ether     |
| Bis(2-ethylhexyl) Phthalate |
| Chrysene                    |
| Cyanide                     |
| Dibenzo (a,h) Anthracene    |
| Dibenzo(a,h)anthracene      |
| Dichlorobromomethane        |
| Diethyl phthalate           |

| Di-n-Butyl Phthalate      |
|---------------------------|
| Ethylbenzene              |
| Mercury                   |
| Methylene chloride        |
| N-Nitrosodi-n-Propylamine |
| PCBs                      |
| Pentachlorophenol         |
| Tetrachloroethylene       |
| Thallium                  |
| Toluene                   |
| Vinyl chloride            |

**From:** Char Naylor [mailto:char.naylor@puyalluptribe.com]

Sent: Wednesday, March 19, 2014 10:07 AM

To: Brown, Chad (ECY); Serdar, Dave (ECY); Gildersleeve, Melissa (ECY); Niemi, Cheryl (ECY)

**Cc:** Braley, Susan (ECY)

Subject: RE: Target List of 13 chemicals for tribal toxics study

Thanks so much Chad....

From: Brown, Chad (ECY) [mailto:CHBR461@ECY.WA.GOV]

**Sent:** Tuesday, March 18, 2014 1:26 PM

**To:** Serdar, Dave (ECY); Gildersleeve, Melissa (ECY); Niemi, Cheryl (ECY)

Cc: Char Naylor; Braley, Susan (ECY)

**Subject:** FW: Target List of 13 chemicals for tribal toxics study

Importance: High

Forwarding to Susan (email went to Susi Bragg)

Dave, below are the chemicals that we identified from the permits that we looked at. Would you add any based on your larger review of PARIS permit data?

Antimony

Bis(2-ethylhexyl) phthalate

Cyanide

1,4 Dichlorbenzene

Diethyl phthalate

Methylene chloride

Nickel

Tetrachioroethylene

Toluene

**From:** Char Naylor [mailto:char.naylor@puyalluptribe.com]

**Sent:** Tuesday, March 18, 2014 10:29 AM

To: Gildersleeve, Melissa (ECY); Niemi, Cheryl (ECY); Brown, Chad (ECY)

Cc: Bragg, Susan (ECY)

Subject: Target List of 13 chemicals for tribal toxics study

**Importance:** High

In addition to those 4 chemicals listed by HDR in their treatment analysis (PCBs, mercury, arsenic, and benzo(a)oyrene, do you guys have suggestions for the other 9 target chemicals? The project is moving forward, so please let us know as soon as you can if you have thoughts and as always, thank you.

Char Naylor Puyallup Tribe of Indians Water Quality Manager Phone: 253-680-5520 Cell: 253-405-7815

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